



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-3B/-3B1 BYPASS RATIO: 6.3
 UNIQUE ID NUMBER: 01P05GE189 PRESSURE RATIO (π_{co}): 19.3
 COMBUSTOR: SAC
 ENGINE TYPE: TF RATED THRUST (F_{oo}) (kN): 41.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	13.7	110.1	30.5	23.6
AS % OF ORIGINAL LIMIT	69.9	93.3	38.8	78.1
AS % OF CAEP/2 LIMIT (NO _x)			48.5	
AS % OF CAEP/4 LIMIT (NO _x)			50.9	
AS % OF CAEP/6 LIMIT (NO _x)			52.1	
AS % OF CAEP/8 LIMIT (NO _x)			56.4	

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
 - DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 - OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F _{oo})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.399	0.06	0.00	11.28	18.3
CLIMB OUT	85	2.2	0.329	0.05	0.00	9.68	9.2
APPROACH	30	4.0	0.116	0.13	1.88	6.63	3.1
IDLE	7	26.0	0.049	4.69	47.59	3.72	3.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			164	366	3683	1078	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				8.9	89.7	26.3	18.3
SIGMA (D _p /F _{oo} in g/kN, or SN)							
RANGE (D _p /F _{oo} in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.6-102.9
TEMPERATURE (K)	275.5-281.1
ABS HUMIDITY (kg/kg)	0.0016-0.0039

FUEL

SPEC	Jet A
H/C	1.92
AROM (%)	20.3

MANUFACTURER: General Electric Company
 TEST ORGANIZATION: General Electric Company
 TEST LOCATION: Lynn Cell 121
 TEST DATES: 21/03/1991-25/03/1991

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

REMARKS

1. Ref. GE Report R95AEB012
2. Engine S/N 807-005
3. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
4. NO_x levels in accordance with Part III, Chapter 2, 2.3.2 e)

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation, '- ' if information is not available)